

## Featured graphic. The socioeconomic position of Swiss neighbourhoods

Area-based indices of socioeconomic position combine characteristics of areas into a composite measure of their socioeconomic standing. Most indices are based on fixed administrative or census areas, driven by the availability of data. They suffer from the modifiable areal unit problem (MAUP), where different aggregations of data yield different results.

The Swiss Neighbourhood Index of Socioeconomic Position (Swiss-SEP) was developed using georeferenced Census 2000 and road network data to defined ‘ego-centred’ neighbourhoods of approximately fifty households around residential buildings, with sliding rather than fixed boundaries. The socioeconomic standing of these neighbourhoods was assessed on the basis of median rent, education and occupation of household heads, and household crowding, with the index ranging from 0 (lowest SEP) to 100 (highest).

The map shows Swiss-SEP deciles for 1298079 residential neighbourhoods. Neighbourhoods of higher SEP (green; see coloured version online) are found mainly in the urban agglomerations (Zurich, Geneva, Basel, Lausanne, Bern) and along the lakes (for example, Lake Geneva and Lake Zurich). Of note, the eastern shore of Lake Zurich is also known as the ‘Gold Coast’. Neighbourhoods of lower SEP (red) dominate the periurban and rural regions immediately north of the Alps which are free of major lakes, the area north of the lakes of Neuchâtel and Bienne, and much of the valleys of the Alps.

The inset cartogram of 2896 communes resized according to population illustrates the disparities between the densely populated urban centres of higher SEP and bands of less densely populated areas of lower SEP between the urban centres, with two other sparsely populated areas of lower SEP running along the northwestern border and the valleys of the Alps in the South.

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### Reference

Panczak R, Galobardes B, Voorpostel M, Spoerri A, Zwahlen M, Egger M, 2012 *Journal of Epidemiology and Community Health* **66**(12) 1129–1136, doi:10.1136/jech-2011-200699

**Software:** ESRI ArcGIS 10 with Network Analyst extension (spatial analysis and main map) and ScapeToad (cartogram)

**Sources:** Swiss Federal Statistical Office, Swiss Federal Office of Topography (swisstopo)

